

# SEQUENCE LISTING

<110> Leonard, Sherry  
 Freeman, Robert

<120> Promoter Variants in the Alpha-7 Nicotinic Acetylcholine Receptor  
 Gene

<130> VARD-07989

<150> 08/956,518  
 <151> 1997-10-23

<160> 180

<170> PatentIn version 3.2

<210> 1  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 1  
 tcctgatgtc ggctcccaac t 21

<210> 2  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 2  
 ggtacggatg tgccaaggat a 21

<210> 3  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 3  
 tttgggggtg ctaatccagg a 21

<210> 4  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 4	
ttgttttcct tccaccagtc a	21
<210> 5	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic	
<400> 5	
ctcgctgcag ctccgggact ca	22
<210> 6	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic	
<400> 6	
ggaggctcag ggagaagtag	20
<210> 7	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic	
<400> 7	
ctccaggatc ttggccaagt c	21
<210> 8	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic	
<400> 8	
agatgcccaa gtggaccaga g	21
<210> 9	
<211> 337	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic	

<400> 9  
 agatgccccaa gtggaccaga gtcatccttc tgaactgggtg cgcgtgggttc ctgcgaatga 60  
 agaggccccgg ggaggacaag gtgcgccccgg cctgccagca caagcagcgg cgctgcagcc 120  
 tggccagtgt ggagatgagc gccgtggggc cgcgcggcgc cagcaacggg aacctgctgt 180  
 acatcgggctt ccgcggcctg gacggcgtgc actgtgtccc gacccccgac tctggggtag 240  
 tgtgtggccg catggcctgc tccccacgc acgatgagca cctcctgcac ggcgggcaac 300  
 cccccgaggg ggacccggac ttggccaaga tcctgga 337

<210> 10  
 <211> 32  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 10  
 cacacacaca cacacacaca cacacacaca ca 32

<210> 11  
 <211> 54  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 11  
 cacacacaca tcacacacac acacacacac acacatacac acacacacca caca 54

<210> 12  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 12  
 gatcttttgt agaagc 16

<210> 13  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 13  
 accaccacta ccatacagac 20

<210>	14	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	14	
	caaagaacgc aagggagagg t	21
<210>	15	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	15	
	cggctcgcgc gcctttaagg a	21
<210>	16	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	16	
	gggctcgtca cgtggaaaag c	21
<210>	17	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	17	
	ggatcccacg gaggagtgga g	21
<210>	18	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	18	
	cctgcccggg tcttctctcc t	21

<210>	19	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	19	
	aactagagtg cccagccga gct	23
<210>	20	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	20	
	aacaacgctc tcgacagtca gatc	24
<210>	21	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	21	
	aagatcttgc agcccatggg ag	22
<210>	22	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	22	
	ggaattctct ttggttttgc ac	22
<210>	23	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	23	
	acatatccag catctctgtg a	21

<210>	24	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	24	
	tcatgcagtc cttttcctgt ttc	23
<210>	25	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	25	
	ctcgcttcag ttttctaaca tgg	23
<210>	26	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	26	
	ggaactgctg tgtattttca gc	22
<210>	27	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	27	
	ttaaagcttg cccaggaata gg	22
<210>	28	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	28	
	gcttgtgtgt ggtatacaca ttg	23

<210>	29	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	29	
	tccagagctg atctcagcag aag	23
<210>	30	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	30	
	gcccctcgtt agacagaatt gag	23
<210>	31	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	31	
	ctgggcacac tctaacccta acc	23
<210>	32	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	32	
	tgtgacgtgc agtgccacag ga	22
<210>	33	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	33	
	aaaaccctag gaggagcctc ctt	23

<210> 34  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 34  
gatcagcccg tttccgcctc a

21

<210> 35  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 35  
ggtacggatg tgccaaggat a

21

<210> 36  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 36  
ggactctgct tttgataaat atgtatg

27

<210> 37  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 37  
ttgctgtcac tttctgtgtt tcat

24

<210> 38  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 38  
gacaatccaa aggtgcagaa agc

23



<210>	39	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	39	
	ttcgtatctg tatacagaca gtc	23
<210>	40	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	40	
	cctcagcatc atattagttc agtg	24
<210>	41	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	41	
	gcggacaaga gaaacaggaa ag	22
<210>	42	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	42	
	ggcagtgggtg ctgttgccct t	21
<210>	43	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	43	
	tttctcctgg gactctgggc ac	22

<210> 44  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 44  
tgacgccaca ttccacacta a

21

<210> 45  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 45  
ttgttttcct tccaccagtc a

21

<210> 46  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 46  
ccaagtttta accaccaaca tttgg

25

<210> 47  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 47  
tccccgcgga agaattgtctg gtttcctaaat ctg

33

<210> 48  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 48  
aggaccctaaa ctctcag

16

<210> 49  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic  
  
 <400> 49  
 caucauac auccagcgta catcgatgta gcaggaactc ttgaatat 48  
  
 <210> 50  
 <211> 47  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic  
  
 <220>  
 <221> misc\_feature  
 <222> (36)..(37)  
 <223> n is a, c, g, t or u  
  
 <220>  
 <221> misc\_feature  
 <222> (40)..(41)  
 <223> n is a, c, g, t or u  
  
 <220>  
 <221> misc\_feature  
 <222> (45)..(46)  
 <223> n is a, c, g, t or u  
  
 <400> 50  
 cuacuacuac uaggccacgc gtcgactagt acgggnnggn ngggngng 47  
  
 <210> 51  
 <211> 25  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic  
  
 <400> 51  
 cgctgcagct ccgggactca acatg 25  
  
 <210> 52  
 <211> 25  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic  
  
 <400> 52  
 tgcccatctg tgagttttcc acatg 25

<210> 53  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 53  
tgacgccaca ttccacacta a

21

<210> 54  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 54  
ccccaaatct cgccaagc

18

<210> 55  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 55  
ctcggtgccc cttgccattt

20

<210> 56  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 56  
ccttgcccat ctgtgagttt tccac

25

<210> 57  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 57  
cccagtactt cgccagcacc atgat

25

<210>	58	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	58	
	ccccgtcggg gtcgtggtgg tggta	25
<210>	59	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	59	
	tccccggcaa gaggagtga aggtt	25
<210>	60	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	60	
	acaccagcag ggcgagggcg gagat	25
<210>	61	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	61	
	gaccagagtc atccttctga actgg	25
<210>	62	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	62	
	tttcaggtag accttcatgc agaca	25

<210>	63	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	63	
	cgatgtacgc tggtttccct ttgat	25
<210>	64	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	64	
	ttcccactag gtcccattct ccatt	25
<210>	65	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	65	
	cgctgcagct ccgggactca acatg	25
<210>	66	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	66	
	tgcccatctg tgagttttcc acatg	25
<210>	67	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	67	
	tgacgccaca ttccacacta a	21

<210>	68	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	68	
	ccccaaatct cgccaagc	18
<210>	69	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	69	
	ctcggtgccc cttgccattt	20
<210>	70	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	70	
	ccttgcccat ctgtgagttt tccac	25
<210>	71	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	71	
	tgtaaaacga cggccagt	18
<210>	72	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	72	
	caggaaacag ctatgacc	18

<210>	73	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	73	
	aaggagctgg tcaagaacta caatc	25
<210>	74	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	74	
	ccggaatctg caggaagcag gaaca	25
<210>	75	
<211>	26	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	75	
	ccaggcgtgg ttacgcaaag tctttg	26
<210>	76	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	76	
	gatgtgcagc actgcaaaca a	21
<210>	77	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	77	
	ttaaagcttg cccaggaata gg	22



<210>	78	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	78	
	ggaactgctg tgtattttca gc	22
<210>	79	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	79	
	aagaccagga cccaaacttg t	21
<210>	80	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	80	
	gcttgtgtgt ggtatacaca ttg	23
<210>	81	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	81	
	gtagagtgtc ctgcggc	17
<210>	82	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	82	
	ggtccgctac attgccaa	18

<210> 83  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 83  
tgatggtgaa gaccgagaag g

21

<210> 84  
<211> 55  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<220>  
<221> misc\_feature  
<222> (1)..(48)  
<223> n is a, c, g, or t

<400> 84  
nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnct gcacg

55

<210> 85  
<211> 10  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 85  
tctccttaag

10

<210> 86  
<211> 10  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 86  
ttttttgaag

10

<210> 87  
<211> 10  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 87  
tgtgtgtcag

10

<210> 88  
<211> 11  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 88  
ctgtttctag t

11

<210> 89  
<211> 10  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 89  
acccacacag

10

<210> 90  
<211> 10  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 90  
ccctatggag

10

<210> 91  
<211> 10  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 91  
tatgttttag

10

<210> 92  
 <211> 10  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 92  
 ctctccacag 10

<210> 93  
 <211> 10  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 93  
 gtctccccag 10

<210> 94  
 <211> 457  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 94  
 agaacgcaag ggagaggtag agcctggcct tgggcagccc ctggcctggc cagaggcgcg 60  
 aggccgagag cccgctcgtt ggagactggg ggtggaggtg cccggagcgt acccagcgcc 120  
 gggagtacct cccgctcaca cctcgggctg cagttccctg ggtggccgcc gagacgtgg 180  
 cccgggctgg agggatggcg gggcggggac gggggcgggg gcggggctcg tcacgtggag 240  
 aggcgcgcgg gggcggggcg ggcggggcg cgcgcccgcc tccttaaagg cgcgcgagcc 300  
 gagcggcgag gtgcctctgt ggccgcaggc gcaggcccgg gcgacagccg agacgtggag 360  
 cgcgccggct cgctgcagct ccgggactca acatgcgctg ctgcggggga ggcgtctggc 420  
 tggcgctggc cggtcgctc ctgcacggta aagccac 457

<210> 95  
 <211> 307  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 95  
caggccgcca catagctccc gccaaagtcct cggtgcccct tgccattttc cagccgcgtc 60  
ccacgaggggt cacggcggcg gggagagggtg gagccgcgag agctcggccg ggggccccgc 120  
ctggtggccg cggccatgac agcggctcgg gactggctcc ttttccgcgc ccttcccgcc 180  
ggagggtgagg ggaagatgtc catgtcaggg ttcaaggcca aaccgaagtt actggcctct 240  
atcttccagg agaaccagga gccacagccg cggctcacgc cccaccgcaa cattaagggtg 300  
agtcgcc 307

<210> 96  
<211> 145  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 96  
ctcattttcag attacaagtg gacacctgag tcagcaggac ctggaatccc agatgagaga 60  
gcttatctac acgactcaga tcttggtgtc acccccatta ttgacaatcc aaagggtgcag 120  
aaagcactct gacaagtgag ttgta 145

<210> 97  
<211> 84  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 97  
ttaaccacag ataatgaaac aaccaccatc ggttaaattt gatgcaaaaa tattgcatct 60  
accagcattt tcaggtagga tcat 84

<210> 98  
<211> 67  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 98  
tttattctag ttccaattgc taatccagca tttgtggata gctgcaaact gcgatatgta 60  
agtaaca 67

<210> 99  
 <211> 100  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic  
  
 <400> 99  
 ctgtttctag tgctgatgag cgctttgacg ccacattcca cactaacgtg ttggtgaatt 60  
 cttctgaggca ttgccagtac ctgcctccag gtaagctgca 100  
  
 <210> 100  
 <211> 37  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic  
  
 <400> 100  
 acccacacag gcatattcaa gagttcctgc tacatcg 37  
  
 <210> 101  
 <211> 392  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic  
  
 <400> 101  
 agaacgcaag ggagaggtag agcctggcct tgggcagccc ctggcctggc cagagggcgcg 60  
 aggccgagag cccgctcggg ggagactggg ggtggaggtg cccggagcgt acccagcgcc 120  
 gggagtacct cccgctcaca cctcgggctg cagttccctg ggtggccgcc gagacgctgg 180  
 cccgggctgg agggatggcg gggcggggac gggggcgggg gcggggctcg tcacgtggag 240  
 aggcgcgcgg gggcgggcgg ggccggggcg cgcgcccggc tccttaaagg cgcgcgagcc 300  
 gagcggcgag gtgcctctgt ggccgcaggc gcaggcccgg gcgacagccg agacgtggag 360  
 cgcgccggct cgctgcagct ccgggactca ac 392  
  
 <210> 102  
 <211> 689  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic

<400> 102  
agccctttcc caggcggtag cgggggcagt ggtgctgttg cccttttaaa ctgcggcttg 60  
acgggagccg cgcctcctgt cgggtggagtc ggtataaaag ggagcagccc cgcaggccgc 120  
cacatagctc ccgccaagtc ctcggtgccc cttgccattt tccagccgcg ctcccacgag 180  
ggtcacggcg gcggggagag gtggagccgc gagagctcgg ccgggggccc cgcctggtgg 240  
ccgcggccat gacagcggct cgggactggc tccttttccg cggccctccc gccggagggtg 300  
aggggaagat gtccatgtca gggttcaagg ccaaaccgaa gttactggcc tctatcttcc 360  
aggagaacca ggagccacag ccgcgggtca cggcccaccg caacattaag attacaagtg 420  
gacacctgag tcagcaggac ctggaatccc agatgagaga gcttatctac acgactcaga 480  
tcttggtgtc acccccatta ttgacaatcc aaagggtgcag aaagcactct gacaattcca 540  
attgctaadc cagcatttgt ggatagctgc aaactgcgat attgctgatg agcgctttga 600  
cgccacattc cactaaccg tgttggtgaa ttcttctggg cattgccagt acctgcctcc 660  
aggcatattc aagagttcct gctacatcg 689

<210> 103  
<211> 641  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 103  
caggccgcca catagctccc gccaaagtcct cggtgcccct tgccattttc cagccgcgct 60  
cccacgaggg tcacggcggc ggggagaggt ggagccgcga gagctcggcc gggggccccc 120  
cctggtggcc gcggccatga cagcggctcg ggactggctc cttttccgcg cccctcccgc 180  
cggaggtgag gggaagatgt ccatgtcagg gttcaaggcc aaaccgaagt tactggcctc 240  
tatcttccag gagaaccagg agccacagcc gcggctcacg cccaccgcga acattaagat 300  
tacaagtgga cacctgagtc agcaggacct ggaatcccag atgagagagc ttatctacac 360  
gactcagatc ttgttgtcac cccattatt gacaatccaa aggtgcagaa agcactctga 420  
caaataatga aacaaccacc atcgggttaa tttgatgcaa aaatattgca tctaccagca 480  
ttttcagttc caattgctaa tccagcattt gtggatagct gcaaactgcg atattgctga 540  
tgagcgcttt gacgccacat tccacactaa cgtgttggtg aattcttctg ggcattgcc 600  
gtacctgcct ccaggcatat tcaagagttc ctgctacatc g 641

```

<210> 104
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 104
gtaaagccac 10

<210> 105
<211> 140
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> misc_feature
<222> (6)..(134)
<223> n is a, c, g, or t

<400> 105
tgtccnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 60
nnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 120
nnnnnnnnnn nnnngacgtg 140

<210> 106
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 106
gtgagtcccg 10

<210> 107
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> misc_feature
<222> (7)..(38)
<223> n is a, c, g, or t

<400> 107
gatgagnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnca aatg 44

```



<210> 108  
 <211> 10  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 108  
 gtaagttaag

10

<210> 109  
 <211> 110  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<220>  
 <221> misc\_feature  
 <222> (7)..(105)  
 <223> n is a, c, g, or t

<400> 109  
 tcttggnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 60  
 nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnaacag 110

<210> 110  
 <211> 10  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 110  
 gtaagcatat

10

<210> 111  
 <211> 80  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

```

<220>
<221> misc_feature
<222> (7)..(73)
<223> n is a, c, g, or t

<400> 111
gctgatnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn      60
nnnnnnnnnnn nnnccctccag                                     80

<210> 112
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 112
gtaagctgca                                                  10

<210> 113
<211> 168
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> misc_feature
<222> (6)..(161)
<223> n is a, c, g, or t

<400> 113
gcataannnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn      60
nnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn      120
nnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nctagtgg                                     168

<210> 114
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 114
gtaagccatg                                                  10

```

```
<210> 115
<211> 195
<212> DNA
<213> Artificial Sequence
```

```
<220>
<221> misc_feature
<222> (6)..(188)
<223> n is a, c, g, or t
```

```

<400> 115
gaatcnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn      60
nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn      120
nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn      180
nnnnnnnnntc cctgg                                     195

```

```
<210> 116
<211> 10
<212> DNA
<213> Artificial Sequence
```

```
<400> 116
gtaagcgccc 10
```

```
<210> 117
<211> 87
<212> DNA
<213> Artificial Sequence
```

```
<220>
<221> misc_feature
<222> (6)..(80)
<223> n is a, c, g, or t
```

```
<400> 117
ggatannnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn      60
nnnnnnnnnnn nnnnnnnnnn ttgatag                                           87
```

```
<210> 118
<211> 10
<212> DNA
<213> Artificial Sequence
```

```
<210> 119
<211> 110
<212> DNA
<213> Artificial Sequence
```

```
<210> 120
<211> 10
<212> DNA
<213> Artificial Sequence
```

```
<210> 121
<211> 519
<212> DNA
<213> Artificial Sequence
```

<400> 121  
accagannnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 60  
nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 120  
nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 180  
nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 240  
nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 300  
nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 360  
nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 420  
nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 480  
nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn 519

<210> 122  
<211> 2619  
<212> DNA  
<213> Homo sapiens

<400> 122  
gaatttctaaa ccatataata cacatttgga ctccacacct aagcctaata cacttttttgg 60  
tttttaaagt tgtaattatc tttttccccc tatccggagc ccaagcagaa aacatgcttc 120  
cttcacattc cctgggctaata ggttgagggt tcctgggtctt ttttacctg gaaaggagat 180  
tacaccaatt tctggattta tgtgaatata tcagttccag ttccccacct ctcataggcc 240  
ccaagcccaa ggtcacctta cctcctgaga gtgtgttaaa atttccctct taccataga 300  
atctatatatt ttggtatgcc caggcatgta ttcacatcct gctatgtttt atttgctgtt 360  
ttttttttgt ttttttttgt tttttttttt tttgctttgg gaacgggagt gagtgtagaa 420  
cctatacagt cccgtcagct ctattccaag aatgttctgc tcttttcttc gtttcacaaa 480  
tgaaaaacct gagtcccata gatgggagtc aatacagcca aactcacaga cctacctatg 540  
gcacagggga gactgaagtt tattttccaa cttccagcag tcctacattg taagctgagt 600  
gagtggactg cgcttgacag tcctccaggt gcctagcgag aacagaggac aaataaatat 660  
ttacgaattg cttgtctcac ctgaaaatgg tttatttcta ggtttctgat attatggggt 720  
gcaatggcgg taaagaagca gttctggttt caggaatgtg atcctgatag ccatactcca 780  
gaaaaaatca ataaattccc ttggcccat gggctcatgc tcttctagaa gggaagacag 840  
ggctcttagg tactttcagc gctcgtagaa gagtgtgtgt acagtcccat gaccagtgca 900  
ggggatgtgc cactgagaat cttttcactg atgcttcatg ggctttctct attctgctac 960  
tgggttttat ttcccttctt ctaattctcc ctttaccac aactaatccc ctgtagataa 1020  
ttaattcatc aagtgcctgc tctgtgatgt ccggactgct agaagtggta gggggactca 1080

agagccagat	gaagctaagg	gcacgcctgt	ctgctctcca	gggacccctg	gcgtcccttt	1140
ctcctggcag	aatgactgct	atcctttgag	gtgaatccag	ttcagctgtc	acctcttcta	1200
ttaaccactc	tccaaaaaca	gctaatacctt	cttctaggct	cttaccgcag	ttatgaaagc	1260
ctatgctgac	cctttgttta	aacatgtgta	cattaacagt	aatacattta	agacacttca	1320
tggcaagggc	aatatactgc	gttattcttc	caaatacaat	agttgggctc	agtcccccac	1380
tcctgctact	ggggtacagt	caagctcagt	caccttttgg	tgagcctttc	cctagtctct	1440
ggagtcttaa	aagaatcccg	tggttttcgg	cagttcagaa	acccaggcat	tgccgctgcg	1500
tgggccacgg	gagttgctct	ggtggagctc	ggatgcccgg	gggctgcagg	aaagaagggtg	1560
gcagcgcccc	ctacgcggac	gcagggcgct	gctgtgctca	gcagaaggga	gcaaataggga	1620
tggagcttca	gccaccctgg	aagccgcccc	ttggcgccct	cctccctccc	ttcctctttc	1680
caaaatcaag	ccccctcttc	aacatcaaga	actctccgca	ctccctggac	ctctcagagc	1740
ctctcctcat	ttactctttc	caatgcgctg	gctcaaaaga	gcctagataa	gaacaccaag	1800
ttctggctgt	ccttccagca	aagagttagg	agttaacttt	tcaatctttt	ttaatctcct	1860
ttaaaaaaga	atgagccata	cattagggta	accactggga	atcccatcac	acacattggc	1920
ggcatctctc	ctccccgaca	gggtgcctcc	agcacttcag	atcccagccg	agagtctggc	1980
tgctggcgcc	cagcaaacgg	tgcggaagc	aaaccggggc	tcgcggaag	cgaggaggag	2040
ggggcttcct	cgggtctgtt	ttgtctggtt	ggcaagactt	ccgaagcctg	gttccctata	2100
gctgccaccc	ggtcgctggc	gtggaggagg	gagtccggga	agactggacc	ccagaattgt	2160
cccggctttc	tcccagtgct	ccagcgcagc	ttctggctga	gagcgggagc	gggctgagtg	2220
gggacaaaga	acgcaaggga	gaggtagagc	ctggccttgg	gcagcccctg	gcctggccag	2280
aggcgcgagg	ccgagagccc	gctcggtgga	gactgggggt	ggaggtgccc	ggagcgtacc	2340
cagcgccggg	agtacctccc	gctcacacct	cgggctgcag	ttccctgggt	ggccgccgag	2400
acgctggccc	gggctggagg	gatggggggg	cggggacggg	ggcgggggcg	gggctcgta	2460
cgtggagagg	cgcgcggggg	cgggcggggc	gggggcgcgc	gcccggtccc	ttaaaggcgc	2520
gcgagccgag	cggcgaggtg	cctctgtggc	cgcaggcgca	ggcccggggc	acagccgaga	2580
cgtggagcgc	gccggctcgc	tgcagctccg	ggactcaac			2619

<210> 123  
 <211> 2087  
 <212> DNA  
 <213> Homo sapiens

<400> 123  
ggcacgagga gccgagcggc gaggtgcctc tgtggccgca cggcaggccc gggcgacacg 60  
gagacgtgga gcgcgccggc tcgctgcagc tccgggactc aacatgcgct gctcgccggg 120  
aggcgtctgg ctgggcctgg ccgcgtcgct cctgcacgtg tccctgcaag gcgagttcca 180  
gaggaagctt tacaaggagc tgggtcaagaa ctacaatccc ttggagaggc cctgggcaa 240  
tgactcgcaa ccactcaccg tctacttctc cctgagcctc ctgcagatca tggacgtgga 300  
tgagaagaac caagttttaa ccaccaacat ttggctgcaa atgtcttgga cagatcacta 360  
tttacagtgg aatgtgtcag aatatccagg ggtgaagact gttcgtttcc cagatggcca 420  
gatttggaac ccagacattc ttctctataa cagtgtgat gagcgctttg acgccacatt 480  
ccacactaac gtgttggtga attcttctgg gcattgccag tacctgcctc caggcatatt 540  
caagagtcc tgctacatcg atgtacgctg gtttcccttt gatgtgcagc actgcaaact 600  
gaagtttggg tcctggctct acggaggctg gtccttggtat ctgcagatgc aggaggcaga 660  
tatcagtggc tatatcccca atggagaatg ggacctagt ggaatccccg gcaagaggag 720  
tgaaaggctc tatgagtgtc gcaaagagcc ctaccccgat gtcaccttca cagtgaccat 780  
gcgccgcagg acactctact atggcctcaa cctgctgatc ccctgtgtgc tcatctccgc 840  
cctcgccctg ctggtgttcc tgcttctgc agattccggg gagaagattt ccctggggat 900  
aacagtctta ctctctctta ccgtcttcat gctgctcgtg gctgagatca tgcccgaac 960  
atccgattcg gtaccattga tagcccagta cttcgccagc accatgatca tcgtgggcct 1020  
ctcggtggtg gtgacagtga tcgtgctgca gtaccaccac cacgaccccg acgggggcaa 1080  
gatgcccagg tggaccagag tcctcttct gaactgggtg gcgtgggttcc tgccaatgaa 1140  
gaggcccggg gaggacaagg tgcgcccggc ctgccagcac aagcagcggc gctgcagcct 1200  
ggccagtgtg gagatgagcg ccgtgggccc gccgcccgcc agcaacggga acctgctgta 1260  
catcggttcc cgcggcctgg acggcgtgca ctgtgtcccc acccccgact ctggggtagt 1320  
gtgtggccgc atggcctgct cccccacgca cgatgagcac ctctgcacg gcgggcaacc 1380  
ccccgagggg gacccggact tggccaagat cctggaggag gtccgctaca ttgccaaccg 1440  
cttccgctgc caggacgaaa gcgaggcggc ctgcagcgag tggaagtctc ccgcctgtgt 1500  
gggtggaccgc ctgtgcctca tggccttctc ggtcttcacc atcatctgca ccatcggcct 1560  
cctgatgtcg gctcccaact tcgtggaggc cgtgtccaaa gactttgcgt aaccacactg 1620  
gttctgtaca tgtggaaaac tcacagatgg gcaaggcctt tggcttggcg agatttgggg 1680  
gtgctaatac aggacagcat tacacgccac aactccagtg ttcccttctg gctgtcagtc 1740  
gtgttgctta cggtttcttt gttactttag gtagtagaat ctcagcactt tgtttcatat 1800  
tctcagatgg gctgatagat actccttggc acatccgtac catcggtcag caggggcact 1860

gagtagtcat tttgccatta gccctcagcc tggaaagccc ttcggagagc tccccatggc 1920  
 tcctcaccac cgagacagtt ggttttgcac gtctgcatga aggtctacct gaaaattcaa 1980  
 catttgcttt ttgcttgtgt acaaaccag attgaagcta aaataaacca gactcactaa 2040  
 atcctttcca ataattgact ggtggaagga aaacaaaaaa aaaaaaa 2087

<210> 124  
 <211> 502  
 <212> PRT  
 <213> Homo sapiens

<400> 124

Met Arg Cys Ser Pro Gly Gly Val Trp Leu Gly Leu Ala Ala Ser Leu  
 1 5 10 15

Leu His Val Ser Leu Gln Gly Glu Phe Gln Arg Lys Leu Tyr Lys Glu  
 20 25 30

Leu Val Lys Asn Tyr Asn Pro Leu Glu Arg Pro Val Ala Asn Asp Ser  
 35 40 45

Gln Pro Leu Thr Val Tyr Phe Ser Leu Ser Leu Leu Gln Ile Met Asp  
 50 55 60

Val Asp Glu Lys Asn Gln Val Leu Thr Thr Asn Ile Trp Leu Gln Met  
 65 70 75 80

Ser Trp Thr Asp His Tyr Leu Gln Trp Asn Val Ser Glu Tyr Pro Gly  
 85 90 95

Val Lys Thr Val Arg Phe Pro Asp Gly Gln Ile Trp Lys Pro Asp Ile  
 100 105 110

Leu Leu Tyr Asn Ser Ala Asp Glu Arg Phe Asp Ala Thr Phe His Thr  
 115 120 125

Asn Val Leu Val Asn Ser Ser Gly His Cys Gln Tyr Leu Pro Pro Gly  
 130 135 140

Ile Phe Lys Ser Ser Cys Tyr Ile Asp Val Arg Trp Phe Pro Phe Asp  
 145 150 155 160

Val Gln His Cys Lys Leu Lys Phe Gly Ser Trp Ser Tyr Gly Gly Trp  
 165 170 175

Ser Leu Asp Leu Gln Met Gln Glu Ala Asp Ile Ser Gly Tyr Ile Pro  
 180 185 190



Asn Gly Glu Trp Asp Leu Val Gly Ile Pro Gly Lys Arg Ser Glu Arg  
 195 200 205

Phe Tyr Glu Cys Cys Lys Glu Pro Tyr Pro Asp Val Thr Phe Thr Val  
 210 215 220

Thr Met Arg Arg Arg Thr Leu Tyr Tyr Gly Leu Asn Leu Leu Ile Pro  
 225 230 235 240

Cys Val Leu Ile Ser Ala Leu Ala Leu Leu Val Phe Leu Leu Pro Ala  
 245 250 255

Asp Ser Gly Glu Lys Ile Ser Leu Gly Ile Thr Val Leu Leu Ser Leu  
 260 265 270

Thr Val Phe Met Leu Leu Val Ala Glu Ile Met Pro Ala Thr Ser Asp  
 275 280 285

Ser Val Pro Leu Ile Ala Gln Tyr Phe Ala Ser Thr Met Ile Ile Val  
 290 295 300

Gly Leu Ser Val Val Val Thr Val Ile Val Leu Gln Tyr His His His  
 305 310 315 320

Asp Pro Asp Gly Gly Lys Met Pro Lys Trp Thr Arg Val Ile Leu Leu  
 325 330 335

Asn Trp Cys Ala Trp Phe Leu Arg Met Lys Arg Pro Gly Glu Asp Lys  
 340 345 350

Val Arg Pro Ala Cys Gln His Lys Gln Arg Arg Cys Ser Leu Ala Ser  
 355 360 365

Val Glu Met Ser Ala Val Gly Pro Pro Pro Ala Ser Asn Gly Asn Leu  
 370 375 380

Leu Tyr Ile Gly Phe Arg Gly Leu Asp Gly Val His Cys Val Pro Thr  
 385 390 395 400

Pro Asp Ser Gly Val Val Cys Gly Arg Met Ala Cys Ser Pro Thr His  
 405 410 415

Asp Glu His Leu Leu His Gly Gly Gln Pro Pro Glu Gly Asp Pro Asp  
 420 425 430

Leu Ala Lys Ile Leu Glu Glu Val Arg Tyr Ile Ala Asn Arg Phe Arg  
 435 440 445

Cys Gln Asp Glu Ser Glu Ala Val Cys Ser Glu Trp Lys Phe Ala Ala  
 450 455 460

Cys Val Val Asp Arg Leu Cys Leu Met Ala Phe Ser Val Phe Thr Ile  
 465 470 475 480

Ile Cys Thr Ile Gly Ile Leu Met Ser Ala Pro Asn Phe Val Glu Ala  
 485 490 495

Val Ser Lys Asp Phe Ala  
 500

<210> 125

<211> 276

<212> DNA

<213> Homo sapiens

<400> 125

gggagtacct cccgctcaca cctcgggctg cagttccctg ggtggccgcc gagacgtgg 60

cccgggctgg agggatgggg gggcggggac gggggcgggg gcggggctcc gtcacgtgga 120

gaggcgcgcg ggggcgggcg gggcgggggc gcgcgcccgg ctccttaaag gcgcgcgagc 180

cgagcgggcga ggtgcctctg tggccgcagg cgcaggcccc ggcgacagcc gagacgtgga 240

gcgcgcccggc tcgctgcagc tccgggactc aacatg 276

<210> 126

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 126

ggttggcaag acttccgaag cc 22

<210>	127	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	127	
	gtggctttac cgtgcaggag cg	22
<210>	128	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	128	
	agtacctccc gctcacacct cg	22
<210>	129	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	129	
	atgttgagtc ccggagctgc ag	22
<210>	130	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	130	
	ctggccagag gcgcgaggcc g	21
<210>	131	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	131	
	ggggctcgtc acgtggagag gc	22

<210>	132	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	132	
	agcagcgcat gttgagtccc ggagc	25
<210>	133	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	133	
	gtacctcccg ctcacacctc	20
<210>	134	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	134	
	cggctcgcg cgcctttaagg a	21
<210>	135	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	135	
	agtacctccc gctcacacct cg	22
<210>	136	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	136	
	ggaggctcag ggagaagtag	20

<210> 137  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 137  
gcggcgaggt gcctctgt

18

<210> 138  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 138  
ggatcccacg gaggagtgga g

21

<210> 139  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 139  
cctgcccggg tcttctctcc t

21

<210> 140  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 140  
aactagagtg cccagccga gct

23

<210> 141  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 141  
aacaacgctc tcgacagtca gatc

24

<210>	142	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	142	
	aagatccttgc agcccatggg ag	22
<210>	143	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	143	
	ggaattctct ttggttttgc ac	22
<210>	144	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	144	
	acatatccag catctctgtg a	21
<210>	145	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	145	
	tcatgcagtc cttttcctgt ttc	23
<210>	146	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	146	
	ctcgcttcag ttttctaaca tgg	23

<210>	147	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	147	
	ggaactgctg tgtatatttca gc	22
<210>	148	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	148	
	ttaaagcttg cccaggaata gg	22
<210>	149	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	149	
	gcttgtgtgt ggtatacaca ttg	23
<210>	150	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	150	
	tccagagctg atctcagcag aag	23
<210>	151	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	151	
	gaggaaccgc tgtgtgttta t	21

<210>	152	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	152	
	ctgggcacac tctaacccta acc	23
<210>	153	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	153	
	tgtgacgtgc agtgccacag ga	22
<210>	154	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	154	
	aaaccctagg aggagcctcc tt	22
<210>	155	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	155	
	gatcagcccg tttccgcctc ag	22
<210>	156	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	156	
	ccgatgtaca gcaggttccc gttgc	25



<210> 157  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 157  
cagtacctgc ctccagg

17

<210> 158  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 158  
tccaaggacc agcctccgta aga

23

<210> 159  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 159  
ctatgagtgc tgcaaaga

18

<210> 160  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 160  
caggggatca gcagggtt

17

<210> 161  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic

<400> 161  
gccgcaggac actctac

17

<210>	162	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	162	
	tccagagctg atctcagcag aag	23
<210>	163	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	163	
	gccctcgtt agacagaatt gag	23
<210>	164	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	164	
	ctgggcacac tctaacccta acc	23
<210>	165	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	165	
	gatcagcccg tttccgcctc ag	22
<210>	166	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	166	
	ccgatgtaca gcaggttccc gttgc	25

<210>	167	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	167	
	tcccgacccc cgactct	17
<210>	168	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	168	
	tgatggtgaa gaccgagaag g	21
<210>	169	
<211>	17	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	169	
	tcccgacccc cgactct	17
<210>	170	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	170	
	tgatggtgaa gaccgagaag g	21
<210>	171	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	171	
	ccttctcggc cttcaccatc	20

<210>	172	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	172	
	gcctccacga agttgggagc	20
<210>	173	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	173	
	ggtccgctac attgccaa	18
<210>	174	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	174	
	ccttgcccat ctgtgagtt	19
<210>	175	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	175	
	gtggtgctta cggtttctt	19
<210>	176	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	176	
	tttcaggtag accttcatgc agaca	25

<210>	177	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	177	
	tgcccatctg tgagttttcc acatg	25
<210>	178	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	178	
	cgctgcagct ccgggactca acatg	25
<210>	179	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	179	
	ctcggtgccc cttgccattt	20
<210>	180	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	180	
	ccttgcccat ctgtgagttt tccac	25